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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,021	08/21/2006	Heinz Wolleb	ELI2-23023/A/PCT	7153
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/590,021

Applicant(s)

WOLLEB ET AL.

Examiner

Gerard T. Higgins, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 12/26/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 13 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Applicants' claim 13 is attempting to add the limitation that the metal present in applicants' claim 3 is limited to Ti, Zr, or Hf; however, that limitation is already present in line 3 of applicants' claim 3. For the purpose of examination, the Examiner will pretend that applicants' limitations on the identity of the central metal atom were not present in claim 3.

Claim Rejections - 35 USC § 103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

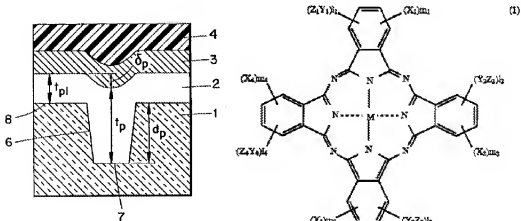
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagimachi et al. (5,696,758) in view of Wolleb et al. (US 2002/0099204).

Yanagimachi et al. teach the structure of Figure 1(a). They also teach the compounds of Equation (I) as a dye suitable for the recording layer of an optical recording medium (col. 7, lines 62-67).

Fig. 1(a)



The optical recording medium is comprised of a substrate 1, a recording layer 2, a reflective layer 3, and a covering layer 4 as per applicants' claim 1; however,

Yanagimichi et al. also teach the possibility of forming an additional reflective layer directly onto the substrate at col. 7, lines 42-44, which would then result in an arrangement in the same order as applicants' claim 6. The phthalocyanine dye of Equation (I) is equivalent to the ones seen in applicants' claims 1-3. With regard to applicants' claims 11 and 13, they teach that the central metal atom may comprise the metals seen at col. 8, lines 28-32, among these titanium is of specific mention. With regard to applicants' claim 4, they additionally teach at col. 8, lines 32-39 that the phthalocyanine dye may comprise branched hydrocarbon groups of 4-12 carbons. With regard to applicants' claim 9 they teach at col. 7, lines 13-14 that the recording layer is formed by spin coating the dye solutions to a grooved substrate. With regard to applicants' claim 7, they teach at col. 13, lines 56-60 that the phthalocyanine dyes, if necessary, "may be used in a mixture of two or more kinds thereof." They specifically teach using "other phthalocyanine dyes...[or] quenchers." The Examiner deems "other phthalocyanine dyes" as being entirely suitable as a metal-free chromophore of applicants' claim 7.

Yanagimachi et al. fail to teach a method of recording or playing back data in the wavelength range of 350 to 500 nm. Additionally, they fail to teach that the compound of Formula (I) and the recording layer of claim 1 are amorphous. Further, they fail to teach specifically using the metal Zr as the central metal atom of the recording layers of claims 2 and 3. Finally, Yanagimachi et al. fail to teach the additional (acetylacetonato type) quencher ligands of applicants' claim 1 bound to the central metal atom.

With regard to applicants' claim 10, Wolleb et al. teach at [0132] and [0133] that the phthalocyanine materials of their Formula (I) may be made into an optical recording media and may be read and recorded using gas/ion lasers, specifically mentioning the wavelengths 442 and 457. With further regard to the phthalocyanine materials of Formula (I) there may be halogens (X) [0024] that may be present (x) up to 8-fold [0033] with respect to the metal.

Additionally, with regard to applicants' claims 5 and 8, Wolleb et al. teach at [0138] that the novel phthalocyanine dyes and hence the recording layers are amorphous.

Further, with regard to applicants' claims 12 and 14, Wolleb et al. teach at [0041] to [0044] the divalent metals that may be present in the phthalocyanine ring, among specific mention is zirconium [0044].

Finally, the Examiner notes as mentioned above that the acetylacetonato type ligands on the central metal atom of the phthalocyanine is used as a quencher molecule to control the light stability of the phthalocyanine dye. Wolleb et al. recognize using nickel dithiolate quenchers at [0120]. The Examiner deems that the nickel dithiolate quencher compounds of Wolleb et al. would undergo a ligand exchange reaction with the central metal atom of the phthalocyanine complex to generate a complex equivalent to the one mentioned in applicants' claim 1. Dithiolate ligands are chemically equivalent to the ligands claimed by applicants in that they provide light stability.

Both Wolleb et al. and Yanagimachi et al. are drawn to recording layers comprising phthalocyanine dyes for optical recording media, therefore it would have

been obvious to one having ordinary skill in the art at the time the invention was made to substitute the known phthalocyanine dyes of Wolleb et al. as the recording layer of Yanagimachi et al. The results of which would have been entirely predictable to one having ordinary skill in the art.

6. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagimachi et al. (5,696,758) in view of Wolleb et al. (US 2002/0099204) further in view of any of the following Namba et al. (JP 60-071296), Namba et al. (JP 60-071295), or Namba et al. (JP 60-071294).

All of the limitations of Yanagimachi et al. and Wolleb et al. have been mentioned in section 5 above; however, although the Examiner deems the dithiolate ligand exchange compounds to be equivalents of the claimed recording layer a specific mention of acetylacetonato type ligands has not been made.

Namba et al. (JP 60-071296), Namba et al. (JP 60-071295), and Namba et al. (JP 60-071294) all teach using quencher compounds of chelated transition metal complexes of acetylacetonato in the recording layer of their optical recording medium (Abstract). The Examiner deems that these compounds would undergo ligand exchange reactions with the phthalocyanine complexes of Wolleb et al. to generate the complexes of applicants' claims 1-3.

Since Yanagimachi et al. (5,696,758), Wolleb et al. (US 2002/0099204), Namba et al. (JP 60-071296), Namba et al. (JP 60-071295), and Namba et al. (JP 60-071294) are all concerned with light stabilizers (quenchers) for optical recording media, it would

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have been obvious to one having ordinary skill in the art at the time the invention was made to make the simple substitution of the known quenchers of Namba et al. (JP 60-071296), Namba et al. (JP 60-071295), or Namba et al. (JP 60-071294) as the quencher in Wolleb et al. The result of which would have been entirely predictable to one having ordinary skill in the art.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerard T. Higgins, Ph.D. whose telephone number is 571-270-3467. The examiner can normally be reached on M-F 7:30am-5pm est. (1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 4174

Gerard T Higgins, Ph.D.
Examiner
Art Unit 4174